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ABSTRACT

Three papers from a study conference are provided. "Is There a Future for Agricultural Education?" (L. Norman) attempts to answer this question. Part I puts forward suggestions as to why there may be no future for agricultural education. Part II suggests some ways of counteracting the problems enumerated in Part I. Part III offers suggestions on securing a future for agricultural education. The second paper, "Managing Resources in Agricultural Colleges--The Way Forward?" (F. Harper), is an overview of the present and future situation. It highlights areas that will need particular attention in management. Important developments in education and in the industry that will have an effect on resource management are discussed. Alternative approaches to college management in the future are then detailed. Finally, the paper considers how the changes in colleges should be managed. The final paper, "The Role of the Chief Administrative Officer" (R. Rogers), discusses changes and developments in the education service area that have had a considerable effect on the role of the registrar/chief administrative officer (CAO). The role and function of a CAO are then outlined. (YLB)

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Managing resources in Agricultural Colleges

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July 1987

MANAGING RESOURCES IN AGRICULTURAL COLLEGES

Further Education Staff College : Course for Senior Administrative Officers of Colleges of Agriculture and Horticulture : 87/10/3

"IS THERE A FUTURE FOR AGRICULTURAL EDUCATION"?

L. Norman, B.Sc., M.Sc., Ph.D.

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1. Introduction

"Any attempt to forecast the future is a dangerous occupation and many forecasts that have been made concerning agriculture and agricultural manpower have proved to be notoriously unreliable. Therefore, it is perhaps understandable that some adopt the view of Higgins in Shaw's Pygmalion.

However, such an attitude would be disastrous for any branch of education if it is to survive. It is vital to consider seriously and carefully the Future of Agricultural Education even if some of the predictions do not exactly come true." (2)

The above quotation provided the conclusions to my paper to the Agricultural College Registrars Coombe Lodge Conference on 22nd January 1982, entitled "The Future of Agricultural Education". Now, only 5 years later, the question is being posed...."Is there a Future for Agricultural Education?"

Nevertheless, it is most appropriate that this question of the future for Agricultural Education should be considered because during the last 5 years a significant number of initiatives have occurred which have had a considerable impact upon Agricultural Education including:-

1983 Introduction of a Nationally Preferred Youth Training Scheme (YTS) for Agriculture and Commercial Horticulture.
B/TEC took over from the Joint Committee for Agriculture, responsibility for National and Higher National Diplomas.

1984 M.S.C. Open Learning Programmes Development launched.
UGC/NAB Transbinary Report

1985 Report of the Audit Commission on 'Obtaining Better Value from Further Education'
Report of the National Consultative Group for the Co-ordination of Validating Arrangements in Agriculture and Related Subjects.
N.E.B. (National Examinations Board) for Agriculture, Horticulture and Allied Subjects formed.
M.S.C. given responsibility for funding 25% of Work Related NAFE

1986 Review of Vocational Qualifications - DeVille Report produced.
"Working Together - Education and Training". Government White Paper (Cmnd 9823) published.
FEPA - Food and Environment Pesticides Act introduced.
Lead Industry Body for Fish and Gamekeeping established with MSC

1987 Education Act (1986) introduced automatic inter-authority payments (recoupment) for out-county students.
Scope of the Agricultural Training Boards widened.

This paper attempts to tackle the question - "Is there a future for Agricultural Education" in 3 parts. The first part puts forward suggestions as to why there may be NO future for Agricultural Education.

2. Part 1 : SUGGESTIONS AS TO WHY THERE MAY BE NO FUTURE IN AGRICULTURAL EDUCATION

2.1 Demographic Trends

The numbers of 16 - 19 year old people are declining at the present time, reaching their nadir by the mid 1990's. In England and Wales in 1981, 16 year olds reached a peak of 841,000 and this number will have decreased by 34% so that in 1993 there will be 556,000 - see MacFarlane Report (1981) (3)

Of course, the aftermath of this trend has been observed in Primary and Secondary schools during the last 10 years with the associated problems of 'falling rolls', closing/amalgamating schools and the making of classrooms and staff redundant. Indeed the MacFarlane Report (1981) (3) p.11, commented on this forecast decline...."Many LEAs are likely to have institutions which are seriously under-subscribed and they will have to take positive action to protect the quality of education provided".

Clearly, such a fall in numbers of the 16 - 19 year old section of the population will have its impact upon agricultural education. Simply, by 1993 there will be a third fewer 16 - 19 year olds than there were in 1981.

Unfortunately, forecasting the likely uptake of Further and Higher Education Courses by students is difficult as is reflected by the Department of Education and Science Statistical projections for numbers of student entrants to Higher Education in future years - see Table 1, which were first published in 1983 and then revised in 1986.

Table 1

Projection of Home Initial Entrants to full-time and sandwich Higher Education (GB) (1000s)

	1985	1994	1999	2000
RoE 99 high (April 1983)	165.4	128.3	133.8	-
low	161.7	119.7	124.8	-
November 1986 high paper	164	156	169	168
low	164	143	148	147

(Source : R.o.E. 1983 Report on Education : 99 - DES
1986 Projections of Demand for Higher Education in Great Britain 1986-2000 - DES)

It may be that in future years a greater proporton of young people seeking employment in agriculture and the related industries, will seek formal agricultural education and training courses than has been the case. Coupled with this is the unpredictability of the labour force that agricultural industry will require. Furthermore, as the Hudson Committee (1973) (4) commented (p.40)...."Refined projections for agricultural manpower over a relatively long period ahead are notoriously unreliable, partly because of the difficulty of making forecasts of the economic environment within which agriculture will function."

Nevertheless, the fact remains that the demographic trend for the 16 - 19 year olds during the next decade is severely downwards.

2.2 The Current Problems Facing Agriculture, Horticulture and the Related Industries

The current problems facing agriculture at home and within the European Economic Community are well known. Agriculture's level of productivity over the years, coupled with a continuous policy of governments encouraging farmers to increase levels of production, has led to greater levels of outputs than the E.E.Community needs, nor is prepared to support. The Minister of Agriculture, Mr. M. Jopling, following the December (1986) meeting of EEC Agricultural Ministers in Brussells, described the building up of stocks as a...."scandal for the Community to have 1.5m tonnes of butter, 1m tonnes of skimmed milk powder, 18m tonnes of grain and 600,000 tonnes of beef in storage." (5)

Methods to regulate levels of output of farm products seem inevitable; milk quotas were established in April 1984, various possible systems to regulate cereal production and level of nitrogen used are being considered.

The consequences of the regulation of levels of output, coupled with ever increasing costs have caused farmers and growers to consider carefully what cost items they can reduce. Obviously, reductions in labour costs are a prime target meaning fewer jobs for young people seeking employment in agriculture and also for young people seeking placements on farms and holdings to gain practical experience during the early years of their career development.

2.3 Changes in the Work Force Engaged in Agriculture

The numbers of persons engaged in Agriculture in the United Kingdom have reduced tremendously since the second World War - see Table 2.

Table 2

Total Numbers of Persons Employed in Agriculture in the United Kingdom (excluding Farmers, Partners and Directors)

Year	Number ('000)
1946	976
1950	918
1955	788
1960	693
1965	551
1970	425
1975	382
1980	355
1985	325

(Source : Annual Review of Agriculture :
1970 (Cmnd 4321) 1977 (Cmnd 6703)
1981 (Cmnd 8132) 1986 (Cmnd 9708)

From Table 2 it will be seen that of the total numbers of people employed in agriculture in the U.K., there has been a decrease of 651,000 since 1946 and even between 1980 and 1985, the number fell by 30,000 (= 8.5%)

The figures published by the Ministry of Agriculture, Fisheries and Food (6) following the 1986 June Survey indicate a further fall of 8.1% in the number of 'hired male regular whole-time workers' and an increase in number of part-time workers.

These figures, based upon Ministry of Agriculture Census data, clearly indicate that the number of people employed in agriculture has continued to fall over the years.

2.4 Agricultural Education and 'Value for Money'

As the agricultural industry has been experiencing considerable pressures in recent years, so the provision of agricultural education has been subjected to 'measures' of efficiency as Further Educaton has been reviewed by the Audit Commission (7). The Commission's concern was to 'Obtain Better Value from Further Education" - with Economy, Efficiency and Effectiveness being the main objectives.

This Audit Report drew attention to a number of important issues, such as:-

Average class size varied considerably between similar institutions where groups of 5 or 6 students were not uncommon.

Retention rates of students taking courses varied with some as low as 'under 65%'.

Poor attendance rates on some courses with 30% or more of students not attending on average.

The highlighting of these variations in practice between Colleges by the Audit Commission Report has stimulated Local Education Authorities to look more carefully at the Management of Colleges using Management Information Systems and attempting to measure levels of educational management achievements.

Inevitably, such a focus of attention on the Management of Further Education has also reflected onto Agricultual Education - where considerable variations in practice between Colleges can be found. For example:-

The 1986/87 draft Survey of Enrolments on Full-time and Sandwich Courses in England and Wales, published by the National Consultative Committee (8) indicates that 7 National Diploma Courses are running with less than 10 students and 30 Certificate Courses have less than 10 students enrolled. (This draft Survey was in fact incomplete since 'no data available' was registered for 7 courses listed in the Survey).

The 1985/86 Society of County Treasurer's draft cost statement : 'Agricultural College Statistics' (9) indicates considerable variations between Agricultural Colleges.

For example, the ratio of Full-time Student Equivalents (FTEs) to teaching staff various from 4.4 to 9.9. Comparing these two figures, if a College had 304 FTEs (the average number of FTEs over the 30 Colleges in the Draft Survey, then at the level of the lowest ratio its number of staff would be 304 FTEs/4.4 = 69 staff and at the 'highest' its number of staff would be 304/9.9 = 31 staff. (A 'saving' of 38 FTE staff posts and at the average cost per teaching post given in the Survey of £16,943 - this would be a saving of 38 x £16,943 = £643,834).

While it is generally accepted that Agricultural Colleges do vary between the academic range of courses offered and the extent of the curriculum range, the variations shown by these measures extracted from the Agricultural Colleges Statistics draft Statement indicate there is scope for improvement; for better 'value for money' in some agricultural education establishments.

2.5. Management Budgeting in Agricultural Colleges

Following the publication of the Audit Report (7) a number of LEAs are introducing some form of management budgeting based upon a unit cost formula related to targeted student numbers. Of course, those Colleges working with Advanced Further Education (AFE) Courses have had to accept the rigid control exercised over AFE Full-time Student Equivalent numbers by the National Advisory Body (NAB) for some time.

The introduction of Management Budgeting will put an extra onus on Agricultural Colleges to forecast student numbers and using Management Information Systems to pay particular attention to levels of education management achievement.

Agricultural Education has always been relatively expensive in relation to many other types of Further Education due to various reasons including the high level of practical instruction often in small groups for safety reasons as well as the frequent use of expensive 'consumable' resources. Furthermore, often small numbers of students are enrolled on courses, pushing up the unit costs - see Table 3.

Table 3 Example Unit Costs and Student Group Size

Average Cost of Lecturer £14,000 + Overheads/£7000		£21,000
Average Lecturer hours/year (36wk x 20hr)		720 hrs
Cost per teaching hour = (£21,000 - 720)		£29.17 per hr
1 Year Course of Students - say 15 students		1200 hrs
'Total' Cost = 1200 hrs x £29.17		£35,004
Cost/place (£35,004 - 15 students)		£2,334
		Unit cost
Planned Enrolments	- 15	2,334
Actual Enrolments	- 12	2,917
Completion	- 10	3,500
Successful	- 8 (4)	4,376 (8,75[illegible])

(Source : Estimates and Calculations)

It is not easy to solve the problems of small numbers on agricultural education courses but the increased focus of attention on management budgeting is likely to direct attention to the high unit costs of such courses and is bound to pose questions as to what will be the future of such courses with high unit costs.

2.6. Controls Imposed Upon Agricultural Education

Agricultural Education has become increasingly subject to controls on the development of courses and the range of work undertaken. The extent of some of these controls is greater than generally experienced in main-stream Further Education. Hitherto, much of the control of Non-Advanced Further Agricultural Education has been exercised over the development of new full-time courses as regulated by the National Consultative Committee for Agricultural Education (NCCAE). This Committee has had a difficult task to undertake, financed on a shoestring and has frequently come to decisions that have not met with acceptance by Colleges or the agricultural industry. The NCCAE has identified courses with low enrolments but no action has been recommended so far about the continuance of such courses by the Committee. Furthermore, that Committee itself, has done nothing about the overall pattern of possible development of courses.

As far as Advanced Courses in Agriculture and Related Subjects are concerned, these are controlled by the National Advisory Board (NAB) and getting new Advanced Courses approved is extremely difficult.

With the Manpower Services Commission becoming more involved in Further Education through mechanisms such as LEA's having to

produce Work Related Non Advanced Further Education (WRNAFE) Programmes for the MSC and subsequent monitoring of those programmes by the MSC, it may be that the role of the NCCAE may be less important in the co-ordination/approval of new full-time agricultural courses.

2.7 The Manpower Services Commission (MSC)

The last few years have seen the increasing involvement of the MSC in work being done by Agricultural Colleges. Following the New Training Initiative (NTI) came the Youth Training Schemes (YTS) in Agriculture, Horticulture and Related Subjects. More recently, through the government policy to channel 25% of LEA funds via MSC Work Related NAFE, plans have had to be submitted and this year the MSC is beginning the monitoring of these plans. It would seem likely that the extent of this monitoring operation will increase over a wider area in the future and may involve more 'in depth' measurement of outcomes from NAFE agricultural education courses.

In Hampshire, the MSC are currently (1985/86) monitoring Phase II Horticulture Courses and are asking for data on:-

Starts Numbers; Drop Outs; Completers of the Course; Numbers Qualifying; Destinations of Completers; Students' reactions to the Course; Employers reactions to the Course; Costs of running the Course, plus also a...."sight of class registers at the end of the Spring Term".

The greater involvement of the MSC with Agricultural Colleges has brought extra work, and income, to the Colleges. Some schemes, such as the YTS have undoubtedly enabled young people to get a start in the agricultural industry but the associated administrative work involved has been considerable.

2.8 The Local Education Authority

Over the years, County Councils in the shire counties have generally regarded Colleges of Agriculture as a prestigous asset and many elected members from rural areas have strongly supported Agricultural Colleges and their programme of work. During recent years, however, many County Councils have experienced the decline of the 'rural voice' with fewer members being farmers or people from the countryside - consequently in many areas the number of 'friends at court' has diminished. Coupled with this the decreasing number of potential agricultural students is bound to cause LEAs to look more closely in the future at Agricultural Colleges - their work, student numbers and outcomes from the programmes of courses offered. The whole situation may be made all the more difficult for some by the easing of 'free trade' by changes relating to Inter-Authority payments in the future.

2.9 The Education Act 1986

The Education Act 1986 contains certain sections relating to Further Education. Exact details will not be known until the associated Order relating to this Act is published. However, the change in arrangements for recoupment/inter-Authority payments could give agricultural students freedom to attend any Agricultural College of their choice whether or not a particular course is available in the Agricultural College in their home county.

2.10 Possible Confusion over the Objectives of Agricultural Education

Clearly, agricultural education is going to face considerable problems and difficulties in the years ahead. Never before has the need for the determination and clear statement of objectives been so essential.

Some Colleges seem to have moved forward, offering new courses, taking in students 'queuing up for places' with little thought given to College Management Plans or the clear definition of objectives for the College, for specific departments and the function of specific resources such as the College farm. This latter often seems to create confusion ranging from those who wish to sell off the College farm to raise funds to others who want it to be a 'green laboratory cum zoo!'

The definition of objectives is likely to be all the more important in the future so that when agricultual education is put under the microscope, clear statements are available as regards policies for its continuance and future - otherwise there may not be a future for Agricultural Education in some situations.

3. Part II : SUGGESTIONS ON THE SCOPE FOR THE FUTURE OF AGRICULTURAL EDUCATION

3.1 Counteracting the Suggestions that there may be no Future for Agricultural Education

The suggestions given in Part I of this paper were put forward as problems for Agricultural Education for the future. Counteracting these may not be easy but Colleges can make some efforts to overcome some of those problems.

For example, the demographic trends for the next decade, indicating a decline in 16 - 19 year olds cannot be disputed but Colleges can attempt to acquire a greater market sector of that population group. Furthermore, it is most important that the Agricultural industry also does so if it is to have an adequate, educated and trained young work force to replace those leaving the industry.

Agricultural Colleges which have commercial farms and other production units can help farmers and growers overcome the current problems which the industry face. For example, alternative farm enterprises can be introduced demonstrating the husbandry and economics of them. Conservation policies can be implemented as well as taking on YTS trainees onto College staff.

By training students with practical skills and knowledge, Colleges can provide a work force for the industry which is highly skilled and capable so that although the number of workers in the industry may be falling, the calibre of those engaged in the industry is higher than it has ever been before.

As regards 'Value for Money' and 'Monitoring Exercises' being

related to Agricultural Colleges, every effort must be made in Agricultural Colleges to give value for money and to narrow the enormous variations in levels of achievement which occur at the present time - this of course will be highlighted by more Colleges becoming involved in management budgeting in the future.

Reference was made in Part I to the various 'controls' which agricultural education experiences at the present time. It is more than likely that these or similar controls will continue to exist in the future and College Principals and Administrators will have to live with these problems - they seem to be an inevitable feature of educational management.

While there are many problems facing agricultural education, there are, nevertheless, some ways and means of counteracting these problems which will require the highest level of management skill from academic and administrative staff if Agricultural Education is to have a future.

3.2 Widening the College's Curriculum Base

One way in which Agricultual Education can survive in the future is by widening its curriculum base. Undoubtedly, some courses (full-time and part-time) may not recruit sufficient numbers for them to continue. Even so, others can be introduced and one way of doing this is to widen the curriculum base of a College. This can be done by considering the provision of courses (full or part-time) in the leisure area (such as horses) in the Related Subjects area, by providing short courses and courses for school pupils.

3.3 Increase the Range of Academic Courses provided

Although the various organisations referred to in Part I do exercise fairly rigid control over the development of new courses in Agricultural Education, it is still possible for a College to increase the range of academic courses provided. At the present time the Technical and Vocational Education Initiative (TVEI) is being extended to all schools in the country providing scope for Agricultural Colleges to be involved with schools in the 14 - 16 year element of TVEI and for Agricultural Colleges to provide the 16 - 18 year element themselves. Other work with schools can be developed further using the existing resources of Agricultural College farms, estates and horticulture departments without cutting across the needs for teaching resources of other vocational students at the College.

There is also considerable scope for Agricultural Colleges to develop provision of Adult Education Courses as well as Beekeeping, Amenity Horticulture and courses for retired people, and also retraining those changing careers or starting again after being unemployed through Restart programmes and the MSC Jobs Training Scheme (JTS).

3.4 Open Learning

Nowadays there is a lot of material available for those who wish to study using Open Learning packages. Much of this material has been produced following the injection of finance by the MSC into this provision such as through the Agricola productions (based on the Lincolnshire College of Agriculture and Horticulture and the Welsh Agricultural College and for

Horticulture by Capel Manor in Enfield). Colleges must consider carefully where is the likely uptake of such Open Learning material by people in their areas as well as the usefulness of such material for study by full-time, part-time and YTS students.

Of course, quantifying the demand for Open Learning material is not easy. However, in an attempt to quantify the interest in Open Learning techniques in agricultural management aspects amongst farmers and managers in the Hampshire area, 136 people were surveyed and asked to express their interest in possible Distance Learning Packages (10). The information obtained is presented in Table 4, indicating a reasonable level of interest especially since the question was inevitably posed in general terms. The respondents were also invited to suggest whether they would be interested in any other type of learning package and 30.5% indicated an interest in the provision of video cassette learning packages.

Table 4 Replies from 136 Farmers/Managers and Former Management Course students answering 'Yes' to the question...'If Distance Learning Packages were available to assist you in the management of your farm, would your prefer...'

National Network T/V Programmes	31.6%
Local Radio Programmes	11.0%
Correspondence Courses linked to a Tutor	29.4%
Tape Recordings	27.2%

3.5 Full Cost Courses/Contract and Consultancy Work

Some Agricultural Colleges already have programmes providing full cost courses in agriculture, horticulture and related subjects. Where the full costs incurred are covered, LEAs are often willing to support Colleges in the development of this work. There must be further scope for this in the future as well as in contract work and consultancy work using the expertise of College staff. For example, the vast amount of training and testing work that will be involved with the legislative requirements of the new Food and Environment Pesticides Act (FEPA) will create considerable opportunities for Agricultural College staff if they wish to take on this work.

3.6 Marketing College Courses

Various suggestions have been made as regards the scope for agricultural education for the future. If it is to survive it seems that a considerable effort will need to be put into the marketing of agricultural education courses. In this particular respect, some Agricultural Colleges are recruiting marketing lecturers to market College courses while other Colleges are making staff more aware of the importance of marketing their programmes. (11)

Where there is to be a future for agricultural education it seems

likely that the marketing of College courses will play an important part in the shaping of that future.

4. Part III SUGGESTIONS ON SECURING A FUTURE FOR AGRICULTURAL EDUCATION

4.1 Determination of Objectives and a Management Development Plan

So that Agricultural Education can secure a future in the coming years, despite the problems and difficulties outlined in this paper, those involved in the formulation of future policy should consider the scope available for the future. Opportunities for development coupled with clear statements of objectives can be incorporated into a Management Development plan for a College of Agriculture and commitment sought from Staff, Governors and LEAs to see the Development Plan implemented.

4.2 The Management of Agricultural Education

The future of agricultural education is bound to be linked to the effective management of agricultural education centres. In this respect a great responsibility rests on the Principals, Senior Staff and Chief Administrative Officers. More so, now than ever before, Principals of Agricultural Colleges must be educational managers and not frustrated farmers. The achievements of agricultural education are likely to be much more carefully and closely monitored in the future and this means the use of comparators of measurable items. There will be little if any regard paid to the unmeasurable i.e. qualitative aspects, and little cognisance is likely to be given to statements such as 'Colleges are doing a good job'.

4.3 Political Support for Agricultural Education

Like it or not, the government of agricultural education is invariably conducted on political premises nowadays. Therefore, it is an essential part of the function of managers of agricultural education to keep the necessary politicians informed and where appropriate, they will need to be lobbied to support the work of agricultural colleges - 'friends at court' must be cultivated.

5. CONCLUSIONS

Everyone engaged in agricultural education must be prepared for drastic changes in the next few years - changes such as have not been experienced in the past. In this respect a useful report to read is that published by the Further Education Unit in 1986 entitled "Preparing for Change" (12) which deals with Curriculum-led Institutional Development. So as to cope with these changes, clear objectives for Colleges will need to be set and understood by all involved. Management Development plans are a desirable means of outlining such objectives.

Closer monitoring of staff by means of staff appraisals; of course outcomes such as regular Course Reviews seeking feed back from students and employers will be required. It is going to be most important that

Principals, Administrators, Staff and Students as well as the Agricultural Industry are fully aware of "where Agricultural Colleges are going" in the future.

Being willing to accept change will be an essential starting point, which some educationists may find difficult to accept, as is illustrated by Peddiwells famous satire on curriculum change (13). He tells the story of a pre-historic tribe which decided to introduce systematic education for its children. The curriculum featured survival tactics including sabre-tooth-tiger scaring with fire. Due to climatic changes the sabre-tooth-tigers perish but attempts to change the curriculum to provide for new survival needs meet real opposition:

"Why should children try to scare tigers with fire when the tigers are dead and gone?"	We don't teach tiger-scaring to scare tigers; we teach it to give that noble courage which carries over into the affairs of life!
"Couldn't we try more up-to-date activities in the curriculum - please!"	The essence of true education is is timelessness. It endures through changing conditions like a solid rock in a raging torrent. There are some eternal verities - and the sabre-tooth curriculum is one of them!

While such a stance may be taken by those who are reluctant to change, others who are unwilling to plan ahead may find themselves in deep waters - for as Cameron (14) says....

"People who don't know where they are going usually end up somewhere else."
Cameron(14)

If positive objectives for the future of Agricultural Education are underdetermined, the dilemma that faced Alice in 'Alice in Wonderland' is likely to be with us also for a long time :

Alice asked the Cheshire Cat -

"Would you tell me, please, which way I ought to go from here?"

"That depends a good deal on where you want to get to". said the cat.

"I don't much care where.....", said Alice.

"Then it doesn't matter which way you go", said the cat (15)

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MANAGING RESOURCES IN AGRICULTURAL COLLEGES - THE WAY FORWARD?

A paper presented to the FESC Study Conference 87/10/3
on Friday 6th March, 1987.

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1. INTRODUCTION

I find myself in the somewhat unenviable position of delivering the final paper in your conference on a topic on which I claim to have no particular expertise nor experience. In addition, my most recent experience has been in a Direct Grant College where over 90 per cent of the student provision is at Advanced Further Education level. I have also had experience in the University sector in Scotland and in the Local Authority sector in Essex. Your organisers see no disadvantages of my background in giving this paper; you must judge that. Nevertheless, there is some advantage in having a relatively independent view of this topic.

Your conference has covered a wide range of topics on resource management and you have probably formulated your own views. It is not my intention to cover the detail of all the aspects you have covered but rather to take an overview of the present and future situation and highlight areas which will need particular attention in management.

There has been a number of developments in education and in the industry (in the broadest sense of the word) in recent years which will have an effect on resource management in the future. These developments paint the scenario against which we shall be operating. A broad perspective is necessary on these developments even though you may be operating at a fairly local level.

2. SOME IMPORTANT RELATED DEVELOPMENTS

i) Demographic Trends. The single most important resource which we deal with is students. If we do not have an adequate student population in relation to the physical and staff resource, management takes on a more difficult slant. It is clear from statistical data that the pattern of births in the United Kingdom points to a declining number of 16-18 year olds entering the education system through to the mid 1990's. Whilst we are already on the downward part of the curve, the decline gets sharper as we move into the last years of this decade and the early 1990's. Every college will therefore have to devise a strategy for coping with these trends and maintaining the student population. Your session on marketing will have emphasised some approaches to this. The evidence is already beginning to show that the numbers entering agricultural education are falling. A sample of 22 colleges offering ND Agriculture courses showed a total intake of 529 in 1985/86 and 466 in 1986/87. This represents a decline of 12 per cent.

Such examples need careful interpretation as the demographic trends are not the only contributory factor. It has in fact been suggested that the decline in the number of 16-19 year olds will be partially off-set by a higher participation rate in further education and indeed some training schemes actively encourage this. Nevertheless this pattern does present real problems for the future.

ii) The Image of the Industry. The demographic trends are currently aggravated by the public perception of agriculture as an industry. this is particularly true in the traditional farm production sector. Membership of the European Community and all its potential advantages has brought problems. We now operate in a situation of surpluses of most commodities which are produced and disposed of by systems which expend substantial sums of public money. Agriculture is therefore not seen as an attractive industry to be in by those not already part of it and indeed by some already in it. This image has been projected by the most powerful media sources and there has been a succession of television programmes over the last 18 months portraying some of the worst aspects. Farming no longer has the attractive image which it once enjoyed.

There have been a number of areas where the industry has aroused public unease and anger. These have largely resulted from endeavours to produce commodities by modern efficient and so-far profitable means. Pesticides in the environment, nitrogen pollution of water and animal welfare are three examples which illustrate these points. The broader environmental aspects of agricultural practice have also been important. Attempts to grow corn on sensitive areas such as the marshlands of the Norfolk Broads and drainage of the Somerset Levels have aroused public concern and have resulted in the establishment of the Environmentally Sensitive Areas. All these factors have contributed to a less favourable image of the industry in young people and dissuaded them from seeking employment in it.

Employment trends are also of concern. The number of people working in the industry has declined steadily for nearly 40 years and last year over 7,000 workers left the industry. The numbers of farmers has also declined. A more positive point is that those remaining in the industry are responsible for managing a larger resource and therefore have a greater need for education and training. In addition, there will always be a need for personnel in the various peripheral industries and organisations associated with agriculture and horticulture.

This rather bleak picture has serious implications for agricultural education unless we are more flexible and make provision for other subject areas which reflect the changing pattern of land use. I shall return to this point later.

iii) Validating and Examining Bodies. You have had a paper earlier in the week on the implications of the National Examinations Board, the National Council for Vocational Qualifications and BTEC. All these are relatively new and the full implications have yet to be felt. These bodies with their new approaches and relationships with centres offering their courses will have considerable effects on the resource needs and their management in the colleges. We have already experienced the introduction of the YTS and the requirements of the Manpower Services Commission. It remains to be seen what the precise effects of the other bodies will be. However, their requirements will inevitably place greater demands on the staff in colleges. There will be a need for greater commitment to curriculum development and for quality in all that we do. BTEC, for example, now operates a system whereby there is greater emphasis on the colleges to develop courses and run them effectively. BTEC, through its moderators, will seek to achieve high standards in colleges and their staff to provide vocationally relevant qualifications.

The requirements of NCVQ are likely to be very demanding on colleges as we move towards competence-based teaching.

iv) Central Policy Making and Decisions. There has been a number of central government initiatives which have implications for agricultural education. Initiatives to combat the high unemployment figures have been taken and agriculture has played its part in that with a very successful national Youth Training Scheme.

The Audit Commission reported its findings on Further Education in 1985. Several important comments came out of this survey of 165 Colleges and Polytechnics. One of the recommendations related to the relatively poor performance of colleges in marketing their courses with resultant low numbers and high drop-out rates. You have dealt with this aspect but it is worth repeating. A further point related to the importance of providing for local needs in the course provision. There are certainly examples where colleges have not worked closely enough with industry. A further point to be emphasised from the report is the 'target' Student : Staff ratio of 12:1. The recently published interim report of the Annual Monitoring Survey lists several agricultural colleges operating at S:SR's of 6 or 7 in the non-advanced sector of their work. This must be of concern in relation to the recommendation of the report.

Within the AFE sector there has been a planning exercise which has set the targets for student numbers at HND and Degree level. This has been detailed and precise and comes into effect immediately. Attainment of target figures will determine financial income and thus we return once again to the importance of recruitment and the student resource. It is unlikely that further developments will occur in terms of new courses unless there is a very strong industrial case and re-allocation of resources from other subject areas. Centres have been asked to plan for reductions although for the time-being agriculture is protected.

With many of these developments comes increased pressure on colleges to manage their activities well and to justify them through a regular monitoring. Monitoring and evaluation seem to be key words these days and in order to do them effectively extra resources are required. We increasingly have to make returns/reports to central government and validating bodies and more recently MSC. Such pressures can be justified on the basis of good use of finance but place extra demands on colleges.

Elements of monitoring include:

Financial control -	profiles of expenditure (2% monthly limit on expenditure)
Staff hours	
Student hours	
Value added criteria:	Examination results and grades Qualifications of entrants Wastage rates First destinations of leavers
Space utilisation	

Control over expenditure and resources has therefore become very tight.

3. ALTERNATIVE APPROACHES IN THE FUTURE

Against the background of changes it will be necessary to consider alternative approaches to college management in the future. There are several strong pointers that indicate continuing pressures on the industry and the educational provision. Some key areas are detailed below.

i) Marketing. There will undoubtedly be a need for increased resources to be devoted to marketing the college, its courses and its students. Publicity material will need to be attractive and appealing and this will demand additional finance. Alternative approaches to the traditional prospectus will need to be considered. Video production, tape-slide packages and television advertising will have to be considered. Additional staff resources will be needed to develop this approach and staff time will be needed to maintain and develop close contact with schools. The role of the Schools Liaison Officer will therefore become more important. The adult population will also need to be targeted.

ii) Diversification of Courses. As the industry changes, course content and aims must also change. It will not be sensible for courses to continue to produce students for today's or yesterday's industry. New course proposals take time to develop and approve and it may well be 3-4 years after the initiation of a new course before trained students emerge from it. Anticipation of change is therefore necessary. The role of the validating bodies in this process is crucial. They must be flexible enough to allow change quickly and the introduction of modular or unit-based courses with options will be helpful in this respect. Nevertheless there will be considerable demands on staff and college managers in terms of curriculum development and staff development to meet these changes. The system must be prepared to react quickly to the needs of industry and of young people entering it.

New courses have already been introduced to meet the needs of the industry and the changing pattern of land use. There are now more courses on topics such as leisure and tourism, conservation and horse management. Further developments will be needed with a greater degree of choice of topics for students within broad-based courses. Woodland management is clearly a topic for future inclusion in courses.

iii) Changes in the mode of attendance. The traditional full-time and part-time provision of courses will continue in some form. However, there will need to be more flexibility in the provision to cater for specific needs and interests. BTEC, for example, will encourage the study of National and Higher National Diplomas by part-time routes of study rather than the traditional full-time sandwich mode. Greater emphasis will be placed on continuing education to provide updating and other education for those adults who need it. Short courses or modules on specific topics will be in demand. Examples of this include goat production, small-scale poultry production and horse management. Such changes in course provision will require a radical change in attitudes and approaches. There will also need to be recognition that adults require a different teaching approach to young entrants. All of these points will lead to an increased need for staff development and measurement ot staff workloads.

iv) Alternative sources of income. Several points have been made in this paper which suggest that the traditional full-time student provision will not be there in the future. If colleges are to continue to maintain their activities it will be necessary to consider alternative mechanisms for generating income. Many colleges have very good facilities in attractive settings in areas of natural beauty or some specific interest. Furthermore, there are several weeks in the year when students are not in residence. There is then considerable scope for utilising the facilities more effectively and generating income. Some of the potential income sources are listed:

Short courses for the public and members of industry.
Farm trails and tours.
Using hostel accommodation for tourists.
Letting the grounds for caravan club rallies.
Use of the college as a conference centre.
Demonstration sites and venues for farmers and industrialists.
Residential centres for non-agricultural activities.

Such activities will place additional pressures on the college resources. It will be necessary to recognise this and make provision accordingly. Where staff are required as tutors, consideration should be given to extra payment to provide incentives. The appointment of a facilities manager may be necessary to generate these activities and manage them. All aspects of college activities will be involved including catering, cleaning, administration and academic staff.

There is considerable scope for this type of activity but it will need careful management if it is not to adversely affect the full-time student provision.

v) Collaboration with other institutions. Many agricultural colleges are very small in size and tend to have a relatively narrow base of activities. If some of the developments referred to are to be implemented it may be necessary to broaden that base. Collaboration with other institutions on an area or regional base may well be necessary to pool resources. There have been several cases of this in recent years and my own institution has joint course arrangements with four other institutions and is part of a West Midlands regional consortium for agricultural training and education for overseas students.

There are undoubtedly advantages in such links and there may well be increased pressure for collaboration in the future. There are of course disadvantages, not least of which is the need to develop inter-institutional financial arrangements across county boundaries. This is not impossible and the three college initiative for a new National Diploma in Northumberland, Cumbria and Durham illustrates this. Additional resources may also be needed for staff and student travel and joint publicity ventures.

4. COPING WITH CHANGE

The background developments which have occurred, and will continue to occur, together with the need to consider alternative approaches will result in changes within colleges. There will therefore be a need to consider how these changes should be managed.

i) Maintenance of student numbers. Extra resources will need to be diverted from somewhere to generate recruitment to the college. These resources will involve finance for publicity materials and also staff time.

ii) Staff Development. Many of the changes outlined will require considerable staff development activities. The DES blue booklet on 'Staff Development and Updating in FE/HE' provides guidance on this aspect and indicates sources of funding. The booklet points to three main facets of staff development:

In-service education and training
Participation in Curriculum Development
Personal and Career Development

As far as in-service aspects are concerned, this will apply to course leaders, section heads, Head of Departments, staff development officers and vice-principals and principals. The new LEA Training Grants Scheme provides a source of finance for these activities. Certain areas are listed as priorities in FE/HE including training related to industry, the economy and world of work, together with the uses of micro-electronics across the curriculum. Staff development may take a number of forms, from formal courses to secondment to industry for periods of time.

Adequate recognition should be given to staff development needs and active encouragement given to fulfil them.

iii) Monitoring and evaluation. It is clear that there will be increasing emphasis on the monitoring and evaluation of all college activities. Validating bodies will require that a centre has adequate processes for monitoring and evaluating its courses. This will place extra demands on staff time. Curriculum development will need to go forward to keep pace with the needs of young people entering the industry.

Statistical returns of a variety of activities will be needed. There are already well-developed systems available for this. Where they are not in use, future introduction, and the associated staff training, will be necessary.

Tighter control of financial matters will also be needed. This will be associated with a greater need to justify our activities and to place more emphasis on performance indicators. New processes in colleges will be necessary to cope with these demands.

iv) Flexibility. There will be a need for greater flexibility in our approach and attitudes in the future. It will be necessary to look beyond the traditional boundaries of agricultural education to secure our future funding and survival. The development of a future strategy and subsequent plans will therefore be necessary. Colleges will need to anticipate the future much more so than they have done in the past. In so doing, it will be necessary to consult with all the staff and to have the backing of the College Governors.

There will also need to be some flexibility in staffing. In rapidly changing and uncertain times, consideration may need to be given to greater use of part-time lecturers and fixed term contracts.

5. CONCLUSIONS

This paper has attempted to identify issues which will affect the management of resources in colleges in the future and suggest alternative approaches to off-set their adverse effects. It has also pointed to areas where change will be needed and given indications of how to cope with them. It has of necessity been non-specific. Each college must consider the issues in the context of its own activities and prospects and decide on methods of dealing with change.

There are a number of points to be made in conclusion.

1. The way ahead is going to be a difficult one.

2. The educational system has coped with change in the past and can continue to do so, provided a flexible approach is adopted.

3. There will be greater emphasis on quality in all that we do including the associated monitoring and evaluation.

4. There will be a need for careful planning and execution in future.

5. There will be a considerable need for staff development in the future.

6. Colleges must realise that agriculture is a rather small fish in the sea of further education. We cannot expect to argue in future that we are different and deserving of special consideration. Of all the students registered for BTEC qualifications, those in agriculture constitute approximately 1%.

F. Harper
3rd March, 1987

THE ROLE OF THE CHIEF ADMINISTRATIVE OFFICER

R. Rogers, DMA
Chief Administrative Officer, The Hampshire College of Agriculture

In Hampshire, the Authority's last major review of the role of the Registrar/Chief Administrative Officer was in 1976. At that time the opportunity was taken to make all Registrars/CAO's Clerk to the Governors.

There have been many changes and developments in the education service in the past ten years which have had a considerable affect on the role of the Registrar/CAO.

These changes and developments include the following examples:

Information Technology

National Advisory Body - influence on funding

AFE, NAFE and MSC implications

Full-cost Courses

Management Budgeting

Privatisation of Services

Employment and Industrial Legislation

Adult Education Institutes

Tertiary Education

Post 16 Education

Audit Commission Survey

F.E. Education Act 1985 (Commercialisation)

Education Act 1986 (Recoupment)

In-Service Training and Staff Development

The Chief Administrative Officer is the senior manager responsible for all the college's non-teaching functions. He/she is responsible for maintaining the quality (in professional terms) of the administrative, financial and related staff and functions.

ROLE AND FUNCTION OF A CHIEF ADMINISTRATIVE OFFICER

1. The CAO will be expected to manage a team of professional administrators with substantial responsibilities. He/she will be concerned as much with policy making, planning, organising and development as with the day-to-day administrative matters.

   The CAO is a key member of the College's Senior Management team.

2. Principles

   2.1 The CAO is the senior administrative member of staff of the College, directly responsible to the Principal, as prescribed by DES Circular 7/70.

   2.2 The CAO, as Clerk to the Governors, has responsibility to the Chairman, Governors and Officers of the LEA.

   2.3 The CAO is a member of the Executive of the College, which includes the Principal, Vice-Principal(s) and CAO.

   2.4 The CAO is regarded as equivalent to a Vice-Principal in the College Management Structure.

   2.5 The CAO, because of the range of duties, should act as leader of the management team of administrative staff formed by his/her Deputy and Section Leaders.

3. Main Functions

   The core elements of the job description should include the undernoted:

   3.1 Provide (as Clerk to the Governors) the Chairman and members of the Governing Body with the information and support needed to carry out their duties, consulting the Principal and Senior Education Officers as required.

   3.2 Contribute to the determination of overall College policies and practices and develop systems, records, costing and other statistical data for management control and budget planning including the introduction and development of information technology for Management Information Systems.

   3.3 Ensure an efficient and effective provision of administrative support to all departments of the College, introducing innovations and new procedures whenever necessary.

   3.4 Implement and develop arrangements for the enrolment, examination and generation of records of students, including adult education students.

   3.5 Ensure that the Senior Management Group, Academic Board and subordinate committees are properly serviced and that appropriate follow up action such as course validation procedures are implemented.

.....continued

3.6 As part of the Executive, be involved in the monitoring of relations with media organisations and general public to achieve maximum and timely publicity and marketing of course opportunities and hence optimum student recruitment. In addition, to assist in projecting the corporate image of the College.

3.7 Ensure that the management of annual financial resources, the control of college income and expenditure and the accounting of public monies are in accordance with the Authority's Standing Orders and Financial Regulations and that proper professional standards are maintained.

3.8 The appointment of all staff in accordance with conditions of service as laid down by local and national agreement. To control development and discipline of all support staff and maintain good working relationships with all trade unions.

3.9 Ensure that adequate arrangements are made to provide reasonable maintenance of grounds and buildings including the implementation of major and minor building schemes.

3.10 Monitor and develop security, health, safety and welfare arrangements in accordance with County and Government directives.

3.11 Ensure that Central and Local Government legislation, policies and regulations applicable to the College, are promulgated and followed within the institution.

3.12 Establish and maintain, on behalf of the College, proper liaison with appropriate departments in the Local Authority, National Education Bodies (DES, NAB) Central Government, Audit Commission, Industrial Employers Groups and Trade Unions.

3.13 Liaise with private firms, contractors and other organisations who are contracted to provide a range of services to the College.

4. Conditions of Service and Salary

4.1 In the light of the fact that the responsibilities of the post are administrative and managerial, rather than teaching, the Chief Administrative Officer is subject to the Scheme of Conditions of Service of the National Joint Council for Local Authorities' Administrative, Professional, Technical and Clerical Services. The salary should be equated to approximately 70% of the Principal's salary.

5. Educational/Vocational Qualification Required

5.1 CAO to be qualified by experience or appropriate educational/ vocational qualifications or both and be able to demonstrate a proven management ability in relation to supervising staff and organising services.

RICHARD ROGERS
March, 1986.